

## Contaminated wells concern Pavillion-area residents



By CHRIS MERRILL  
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LANDER -- It's distressing when you don't know if the water you draw from your own well is even safe to drink anymore, a Pavillion-area resident said Friday.

And it's equally worrisome when you suspect the air you're breathing on your family farm might be making you sick.

Dozens of inhabitants in and around Pavillion are concerned that oil and gas development on their farms and ranches could be poisoning the air and contaminating their drinking water, and they're trying to find out, for certain, if their collective health is being imperiled by industrial contamination.

Nearly 100 residents, including Pavillion Mayor Gary Hamlin -- with the support of the Fremont County Public Health Department -- are calling on state and federal officials to complete what's called a Health Impact Assessment of ongoing oil and gas activities. The assessment is a type of study created by the World Health Organization, which includes a thorough investigation of the impacts that projects and other human activities might on human health.

"My mother-in-law and my wife both have experienced strange things," said John Fenton, a farmer who lives and works about five miles east of Pavillion. "My mother-in-law has completely lost her sense of taste and smell, and my wife has lost her sense of taste off-and-on."

Fenton's neighbors have also experienced "strange" and "random" symptoms that they can't pin down, he said, some of them very serious.

Deb Thomas, an organizer for the Pavillion Area Concerned Citizens, said several water wells in the vicinity of the Pavillion and Muddy Ridge oil and gas fields have become contaminated in recent years, and Pavillion-area residents are simply looking for answers to some basic questions regarding the potential impacts that past and present mineral extraction might be having on them.

"At this point about eight water wells are unfit for human or animal consumption, and can't be used," Thomas said. "Two on Louis Meeks' place, two on the Walker place, two on the old Garner place, the Foxworthy's well just came back as unfit for human and livestock consumption, and several other people are worried about their wells, also. Whatever it is that is contaminating the wells, we need to know. Regardless of whether it's the development or not, we need to know what is going on out there."

In a phone message left with the Star-Tribune, Meeks said he has been bed-ridden with illness in recent days.

Mayor Hamlin, in a prepared statement, said area residents have, indeed, reported health impacts they believe to be related to nearby oil and gas development.

In a letter sent Tuesday to federal, state and industry officials, Hamlin and local health professionals expressed concern that ongoing oil and gas development plans for the region do not adequately address the issue of human health.

"What makes concern even greater are the known impacts to groundwater and private drinking water wells in the Pavillion-Muddy Ridge gas field area, where approximately 400 people live," the signatories wrote.

### **'Bad quality water'**

Doug Hock, spokesman for EnCana Oil and Gas Inc., which is the primary producer of oil and gas in the area, said his company appreciates that people around Pavillion are concerned, but any action EnCana takes has to be based on science rather than emotion.

"We understand their concerns and we've worked with independent laboratories to analyze this in conjunction with government agencies," Hock said. "At this point the independent scientifically collected data shows no hydrocarbon contamination."

Mark Thiesse, district supervisor for the Wyoming Department of Environmental Quality's water quality division, confirmed that at least two private water wells that Thomas mentioned are contaminated, and he's been informed of a few other wells that are possibly contaminated.

But, he said, the DEQ has yet to establish a connection between oil and gas development and the polluted wells.

So far the DEQ has focused its attentions on one well in particular, which is producing bad-smelling water with an oily sheen.

At first, Thiesse said, he was certain the well would be a "slam dunk" for finding some kind of hydrocarbon pollution, because it looked the part and smelled like gear oil.

It appears, however, that a type of iron bacteria might be causing both the smell and the appearance.

His agency has ordered several chemical analyses on different samples from the same well and, surprisingly, the only consistent finding so far has been elevated levels of this bacteria, he said.

One sample showed trace amounts of glycol, he said, but no previous or subsequent sample has, and glycol is a common laboratory-introduced contaminant.

Other samples have been either poorly handled, or the collection method or mode of analysis has been sub-par, which has delayed the process, Thiesse said.

"The bottom line is that after all this testing, there are no confirmed detections of any sort of chemical compound that would definitely come from oil and gas drilling," Thiesse said.

"Everybody's in agreement that the well is messed up. It's bad quality water. The problem is determining if the bacteria is a natural thing, or if it came from [the land owner], or from oil and gas drilling. One of our working hypotheses is that the oil and gas activity has introduced something into the sub surface that has increased the bacteria in this well."

The DEQ has asked EnCana to collect yet another sample of the water, which Thiesse hopes will finally offer a definitive answer.

After that, the DEQ will turn its attentions to another area resident's well that produces water that turns black after being drawn, and leaves black, orange and rust-colored residue on the water filter.

"I'm suspecting it's the oil and gas activities, but I don't know that yet for sure," Thiesse said.

Hock said EnCana will continue to work with the state agencies and continue to look to the DEQ for guidance.

"Anything we do needs to be based on scientific fact," Hock said. "If there are problems found, we will certainly address those. We don't believe that will occur, and it hasn't to this point, but if that were to occur it's our responsibility to clean it up."

### **'Sage chickens' treated better?**

Fenton, who is also the chairman of the Pavillion Area Concern Citizens, said his family has 24 wells on its land, most of which have been drilled within the last 10 years.

"Our water well seems to be okay, but our greatest concern is the air emissions," Fenton said. "They don't do any of what I'd guess you'd call 'green completions.' All of the emissions are vented straight into the atmosphere."

When he's out farming, he said, he always seems to be down wind from at least one of the wells, and they stink. Sometimes in the house his family will have to close all the doors and windows because the home becomes engulfed in a foul emissions cloud, Fenton said.

And because many of the industrial fluids EnCana uses in its drilling and extraction activities are proprietary trade secrets, he and his neighbors have no idea what they're being exposed to, Fenton said.

"They're not making sure they're polluting the least that they can," he said. "I almost feel like if we were a bunch of sage chickens out here, they'd be treating us better."

Fenton said although a Health Impact Assessment is not required in the United States, companies in other countries often perform them before development occurs because the studies are required either by law or by financial backers.

"It seems only reasonable that [Health Impact Assessments] should be part of the planning and approval process in our own country and especially on our own property," Fenton said.

Most of the land where the oil and gas development is taking place around Pavillion is privately owned agricultural and ranching land. The rights to the oil and gas underneath the surface, however, are owned, for the most part, by other interests, such as area tribes. Today, most of the mineral rights in the Pavillion and Muddy Ridge gas fields have been sold or leased to EnCana.

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### **NEWS TRACKER**

**Last we knew:** A group called the Pavillion Area Concerned Citizens formed late last year because of concerns about the impacts of area oil and gas development on water and air quality.

**The latest:** The group is requesting that federal and state agencies take an in-depth look at how oil and gas development in the region is affecting human health.

**What's next:** The organization is waiting for responses from the state, the U.S. Environmental Protection Agency, and the Wyoming Department of Environmental Quality.